A2LA Assessor Environmental Method Checklist

High Performance Liquid Chromatography (HPL

Item	Section 1 - Personnel	Reference	Yes-No or NA	
1.1	Does the analyst(s) interviewed meet the job description position requirements, training and qualifications for performing the test? Supervisor:_____ Technician:_____	(G25)6.1		

Item	Section 2 - Equipment & Facilities	Reference	Yes-No or NA	
2.1	Does the HPLC system include a liquid pumping system, column(s), injector, detectors and a data recording system as specified in the reference method?	(ORDO1)550.1,6.5 (7/90)		
2.2	Is a heated water bath capable of ± 5°C temp. control available for use in a hood?	(SW846)8310,4.3 (9/86)		
2.3	Is Kuderna-Danish apparatus consisting of a concentrator tube, Snyder column and evaporation flask available when extraction is required by the method?	(SW846)8310,4.1 (9/86)		
2.4	Is macrofiltration equipment available to filter derivatization solutions & mobile phases	(ORDO)531.1,6.3 (1989)		
2.5	Is microfiltration equipment available to filter samples prior to analysis?	(ORDO)531.1,6.3 (1989)		

Item	Section 3 - Method	Reference	Yes-No or NA	
3.1	Are wastewater samples extracted within 7 days and the extracts analyzed within 40 days?	(CFR136)605,9.4 (6/86)		
3.2	Are waste samples extracted within 7 days and the extracts analyzed within 40 days?	(SW846)Chap4,4.1 (9/94)		
3.3	Are samples extracted at the proper pH, analyzed within the timeframe using the preservatives in the reference method or based on preservation study data for the samples being analyzed ?	(ORDO)531.1,8.2 (1989)		
3.4	Are stock standards stored in the dark at 4°C and replaced at the end of one year or sooner if comparison with check standards indicate a problem?	(SW846)8310,5.3 (9/86)		

3.5	Are stock standards stored in the dark at room temperature and replaced after 2 months or sooner if laboratory fortified blanks or QC samples indicate a problem?	(ORDO)531.1,7.7 (1989)		
3.6	Are stock standards stored in the dark at 4°C and replaced at the end of six months or sooner if comparison with check standards indicates a problem?	(CFR136)605,6.11 (6/86)		
3.7	Are standards prepared in methanol using gravimetric techniques and corrected for weight if the purity of the compound is certified less than 96%?	(CFR136)605,6.11 (6/86)		
3.8	Is the mobile phase prepared as required by the method and degassed prior to use?	(CFR136)605,6.10 (6/86)		
3.9	Are the operating parameters and equipment equivalent to those indicated in the method and is internal standard calibration procedure followed?	(ORDO)531.1,9.1 (1989)		
3.10	Are the operating parameters and equipment equivalent to those indicated in the method and is external standard calibration procedure followed?	(ORDO)531.1,9.1 (1989)		
3.11	Are three standards bracketing the concentration range containing each analyte and internal standards used to calculate the response factor for each compound?	(ORDO)531.1,9.2 (1989)		
3.12	Is the average response factor used when the RSD is less than 20% for the calibration range of standards when using the internal standard calibration method?	(ORDO)531.1,9.2 (1989)		
3.13	Are at least 3 standards containing each analyte prepared bracketing the sample concentrations, the lowest standard near and above the method detection limit?	(ORDO)531.1,9.2 1989)		
3.14	Is the single calibration point within ± 20% of the sample concentration when using the single point calibration method?	(ORDO)531.1,9.2 (1989)		
3.15	Is the calibration curve, calibration factor or response factor verified each working day by measuring one or more calibration standards and finding the response to be within 15% of the predicted response?	(CFR136)605,7.4 (6/86)		
3.16	Is the width of the retention time window based on three times the standard deviation of the variations in the retention time of standards over the course of a day?	(ORDO)531.1,11.3 (1989)		
3.17	Is a laboratory performance check solution used daily to assess appropriate instrument sensitivity, column performance and chromatographic performance?	(ORDO)531.1,10.8 (1989)		
3.18	Is a series of calibration standards processed through any cleanup or extraction procedures to validate elution patterns and the absence of interferences from the reagents before using the procedure?	(CFR136)605,7.5 (6/86)		

Item	Section 4 - Sample Handling Practices	Reference	Yes-No or NA	
4.1	Are wastewater samples stored at 4°C, in the dark until extraction and preserved with sodium thiosufate when chlorine is present?	(CFR136)605,9.2 (6/86)		

4.2	Are drinking water samples stored at 4°C, in the dark and chemically preserved ?	(ORDO)531.1,8.2 (1989)		
4.3	Are waste samples refrigerated at 4°C and preserved as specified in Table 4-1 for semivolatile organics?	(SW846)Chap4,4.1 (9/94)		

Item	Section 5 - Quality Control Practices	Reference	Yes-No or NA	
5.1	Is the initial demonstration of capability performed when there are method modifications including modifications to columns, conditions, standards and detectors?	(ORDO)531.1,10.4 (1989)		
5.2	Are at least four aliquots containing each analyte analyzed and is the percent recovery found to be within ± 30% of the listed method recovery value?	(ORDO)531.1,10.3 (1989)		
5.3	Is a laboratory reagent blank performed prior to processing samples and each time reagents are changed?	(ORDO)531.1,10.1 (1989)		
5.4	Is the internal standard response for any sample less than 30% of the daily calibration check standard when using internal standard calibration?	(ORDO)531.1,10.5 (1989)		
5.5	Is the laboratory fortified blank analyzed every 20 samples and found to be within the acceptance limits of the method?	(ORDO)531.1,10.6 (1989)		
5.6	Are control limits established by the laboratory after generating five to ten new recovery measurements from the LFB?	(ORDO)531.1,10.6 (1989)		
5.7	Is a laboratory fortified sample matrix analyzed on a minimum of 5% of the routine samples and found to be within the acceptance limits of the method?	(ORDO)531.1,10.7 (1989)		
5.8	Is a quality control sample from an outside source analyzed at least quarterly?	(ORDO)531.1,10.6 (1989)		
5.9	Are the surrogate recoveries for samples, blanks & spikes within the specified limits?	(SW846)8310,8.3 (9/86)		
5.10	Is the calibration and QC acceptance criteria within the method specified limits and the laboratory's method criteria?	(SW846)8310,8.2 (9/86)		